IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appln. No:	10/521,530
Applicant:	Uwe Hendrich et al.
Filed:	January 14, 2005
Title:	BRAKE HOLDER FOR A FLOATING-CALIPER DISC BRAKE WITH A BRAKE PAD GUIDE SPRING
T.C./A.U.:	3683
Examiner:	Melody M. Burch
Confirmation No.:	8766
Notice of Appeal Filed:	September 5, 2008
Docket No.:	PC10449US

APPEAL BRIEF UNDER 37 C.F.R. § 41.37

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Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

S I R :

Appellants hereby request review of the non-final office action dated June 16, 2008 (the "Office Action") and reversal of the rejections of claims 39-44 and 47-53.

This appeal is being timely filed in accordance with 37 C.F.R. § 41.31.

I. REAL PARTY IN INTEREST

The Real Party In Interest in this matter is Continental Teves AG & CO. OHG, as evidenced by virtue of an assignment recorded on January 14, 2005, at Reel/Frame 016754/0271.

II. RELATED APPEALS AND INTERFERENCES

There are no appeals or interferences related to the subject matter of this Appeal.

III. STATUS OF CLAIMS

Claims 1-38, 45, 46 and 54-57 are cancelled. Claims 39-44 and 47-53 stand rejected in the Office Action. The rejections of claims 39-44 and 47-53 are being appealed. Claims 39 and 50 are the independent claims.

IV. STATUS OF AMENDMENTS

The claims were not amended subsequent to the Office Action.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The following summary of independent claims 39 and 50 are provided with reference to Appellants' drawing figures, substitute specification (clean copy) and reference numbers filed January 14, 2005. Appellants' drawing figures, substitute specification and reference numbers are referenced for purposes of illustrating exemplary embodiments of the claimed subject matter.

This application is directed to the species shown in FIGS. 1a-2b. The directional terms "axial", "tangential" and "radial" will be understood with reference to FIG. 1c and arrow 3 (for axial), arrow 4 (for tangential) and arrow 5 (for radial).

Claim 39 is directed to a brake pad assembly that includes a brake pad 6 and a guide spring 20 for engagement with the brake pad. (FIG. 1a; p. 6 line 10; p. 7 line 3). Brake pad 6 includes a main portion and a lateral guiding portion 11 extending from the main portion. (FIG. 1a; p. 6, lines 21-31). Lateral guiding portion 11 includes a stop surface 17 and a radial extension (lowermost part of 11 in FIG. 1b). Guide spring 20 includes an end portion 16 for engagement with the stop surface 17. (FIG. 1b; p. 9 lines 2-5). Guide spring 20 further includes a guiding channel 22 having a depth for receiving the radial extension (FIG. 1b).

End portion 16 of guide spring 20 includes ***a sloped edge 19 that is sloped in the axial direction***. (FIG. 2b; p. 9 line 31 - p. 10 line 1). A purpose of slope 19 is to create an axial spring force that urges the brake pad 6 away from the brake disc. (p. 10 lines 6-8).

Claim 50 is directed to a brake pad assembly comprising a brake pad 6 and a guide spring 20 for engagement with the brake pad. (FIG. 1a; p. 6 line 10; p. 7 line 3). Brake pad 6 includes a main portion and a lateral guiding portion 11 extending

from the main portion. (FIG. 1a; p. 6, lines 21-31). Lateral guiding portion 11 includes a radial extension having three sides. (FIG. 1b). Guide spring 20 includes a guiding channel 22 having a depth for receiving the radial extension and surrounding the three sides of the radial extension. (FIG. 1b).

As in claim 39, guide spring 20 includes ***a sloped edge 19 that is sloped in the axial direction***. (FIG. 2b; p. 9 line 31 - p. 10 line 1). A purpose of slope 19 is to create an axial spring force that urges the brake pad 6 away from the brake disc. (p. 10 lines 6-8).

VI. GROUND OF REJECTION TO BE REVIEWED ON APPEAL

Whether claims 39-44 and 47-53 are unpatentable under 35 U.S.C. § 103(a) as being obvious over German Patent No. DE 100 50 013 A1 ("DE '013") in view of U.S. Patent No. 4,273,129 ("Boebel").

VII. ARGUMENTS

It is respectfully submitted that claims 39-44 and 47-53 are patentable over the cited references for the reasons set forth below.

A. REJECTION UNDER 35 U.S.C. § 103(b) OVER DE '013 IN VIEW OF BOEBEL

1. Claims 39, 40, 42-44, 47-51 and 53

Independent claims 39 and 50 recite brake pad assemblies having a guide spring with an end portion comprising "an axial spring force component with a sloped edge that is sloped in the axial direction." An example of the sloped edge is edge 19 in FIG. 2b. The sloped edge 19 is not a trivial feature. Its purpose is to urge the brake pad away from the brake disc and provide clearance between the brake pad and disc brake. (see p. 10, lines 1-8).

DE '013 shows a brake pad spring 10, but does not show an end portion sloped in an axial direction. To address this deficiency, the Office Action notes that Boebel teaches a clip device 3 with an edge 1b that is sloped in an axial direction. The Office Action contends "[i]t would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the edge of the end portion of DE '013 to have been sloped as taught by Boebel, in order to provide a

means of encouraging the ***clip device*** to translate in a certain manner with respect to the component with which it cooperates for improved supporting function." This is error on at least two grounds.

First ground for error: Boebel is not analogous art that can be cited under 35 U.S.C. § 103. Analogous art is: (1) art from the same field of endeavor, regardless of the problem addressed, and (2) art that is "reasonably pertinent" to the problem with which the inventor is involved. *In re Bigio*, 381 F.3d 1320, 1325 (Fed. Cir. 2004). Boebel teaches a forceps instrument for applying clips to fallopian tubes. Forceps and brake pad assemblies are not in the same field. Moreover, the forceps in Boebel do not address any problem of relevance to brake pad assemblies. The missing claim element in DE '013 is the sloped edge on the guide spring. The purpose of the sloped edge is to apply axial force to the brake pad and urge the brake pad away from the brake disc. (p. 4 line 26 - p. 5 line 8; p. 9, line 31 - p. 10 line 14). Sloped surface 1b in Boebel does not apply axial force to urge clip 3 away from any object. In fact, no purpose for sloped surface 1b is discussed. Therefore, a person of ordinary skill in the field of brake pad assemblies at the time of the invention would not have any reason to consult Boebel or apply any of its teachings to the guide spring in DE '013.

Second ground for error: The Office Action falsely suggests that the sloped surface 1b in Boebel is "a means for encouraging the clip device to translate". Sloped surface 1b does not "encourage" translation of clip 3. The sloped surface 1b is simply part of the clip's shape. Coil springs 14 and 30 cause translation of the clip, with no contribution from slope 1b. Therefore, one would not be prompted to modify the guide spring in DE '013 to have the sloped surface 1b shown in Boebel. Sloped surface 1b serves no purpose or need that is relevant to brake pad assemblies.

For the foregoing reasons, one of ordinary skill in the art would not have found it obvious to combine DE '013 and Boebel in the manner assumed in the Office Action. Boebel is not relevant to brake assemblies and solves no problem of relevance to brake assemblies. Therefore, the Office Action fails to establish a *prima facie* case of obviousness with regard to claims 39 and 50. Accordingly, claims 39 and 50 should be allowed over the cited art.

Claims 40, 42-44 and 47-49 are dependent on claim 39 and incorporate all the elements of claim 39. Claims 51 and 53 are dependent on claim 50 and incorporate all the elements of claim 50. Therefore, claims 40, 42-44, 47-49, 51 and 53 are allowable over the cited art for at least the same reasons that claims 39 and 50 are allowable.

2. Claims 41 and 52

Claim 41 is dependent on claim 39, and claim 52 is dependent on claim 50. Therefore, claims 41 and 52 should be allowed over the cited art for at least the same reasons that claims 39 and 50 should be allowed.

Claims 41 and 52 further recite that the spring arm "comprises a pair of V-shaped hinge portions." Examples of V-shaped hinge portions are labeled "V" in the figure below, which is Appellants' FIG. 2a.

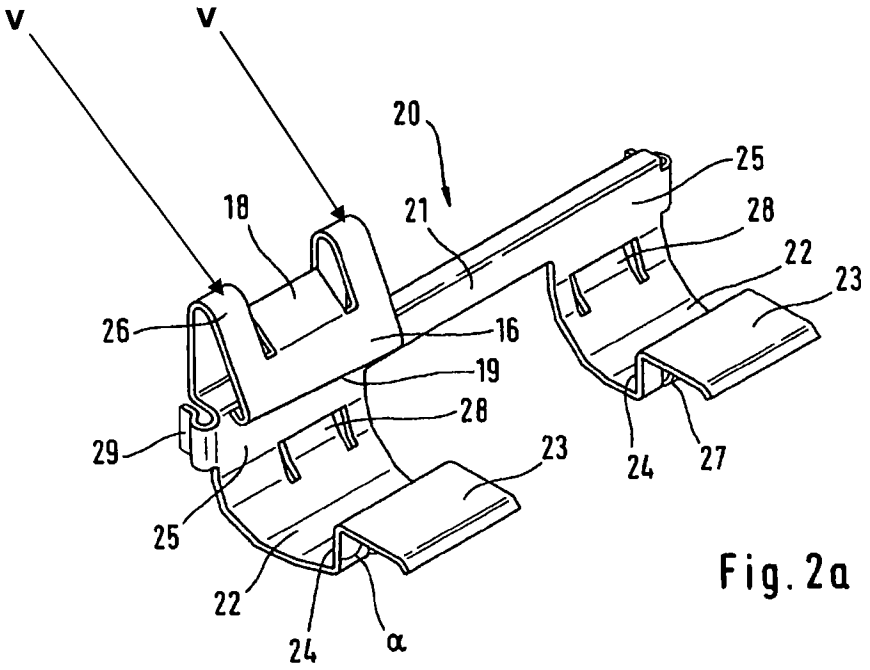

Fig. 2a

The Office Action contends it would have been obvious to modify the shape of the hinge portion to have been V-shaped "depending on the real estate requirements within the brake pad assembly." This is erroneous on at least three grounds.

First ground for error: Claims 41 and 52 recite a *pair* of hinge portions. The Office Action fails to identify a pair of hinge portions in either DE '013 or Boebel, and no pair of hinge portions are shown in DE '013 or Boebel.

Second ground for error: The Office Action assumes that the V-shape is not significant and therefore an obvious configuration under *In re Dailey*. This is without merit because the specification clearly explains the significance of the V-shape. The V-shape causes the spring arm 26 to exert radial and tangential forces against the brake pad to limit rattling. (p. 9, lines 14-16). The V-shape also provides easy mounting of the brake pad 6 in a radial direction. (p. 9, lines 19-30).

Third ground for error: The Office Action suggests that the V-shape merely depends on the "real estate requirements within the brake pad assembly." Assuming that "real estate requirements" refers to spatial requirements, there is no basis for this assumption. The spring arm could have a number of shapes and still fit within the brake holder. The drawings do not show the spatial requirements above the hinges. Therefore, the Office Action cannot conclude that the V-shape is dictated by spatial requirements.

For the foregoing reasons, claims 41 and 52 should be allowed over the cited references.

B. CONCLUSION

Appellants respectfully submit that the rejections of claims 39-44 and 47-53 are improper. The Board's reversal of the rejections of claims 39-44 and 47-53, and allowance of claims 39-44 and 47-53, are respectfully requested.

Respectfully submitted,

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Dated: September 15, 2008

VIII. CLAIMS APPENDIX

Claims involved in this Appeal:

39. A brake pad assembly comprising a brake pad and a guide spring for engagement with the brake pad, the brake pad including a main portion and a lateral guiding portion extending from the main portion, the lateral guiding portion including a stop surface and a radial extension, the guide spring comprising an end portion for engagement with the stop surface, the end portion comprising an axial spring force component with a sloped edge that is sloped in the axial direction, the guide spring further comprising a guiding channel having a depth for receiving the radial extension.

40. The brake pad assembly of claim 39, wherein the guide spring comprises a cantilevered spring arm that terminates tangentially inwardly over the guiding channel.

41. The brake pad assembly of claim 40, wherein the spring arm comprises a pair of V-shaped hinge portions separated by an opening and a central ramp portion extending between the V-shaped hinge portions, the central ramp portion forming a sliding surface that bends radially toward the guiding channel to allow the lateral guiding portion to slide radially over the ramped surface and into the guiding channel.

42. The brake pad assembly of claim 39, wherein the end portion of the guide spring comprises a contoured edge for engagement with the stop surface.

43. The brake pad assembly of claim 42, wherein the contoured edge comprises a convex edge.

44. The brake pad assembly of claim 42, wherein the contoured edge comprises an angled-off edge.

47. The brake pad assembly of claim 39, wherein the guide spring comprises an elongated base having a first end and a second end, and wherein the guide channel comprises a first guide channel section extending from the first end of the base for receiving the brake pad, and a second guide channel section on the second end of the base, the second guide channel section being separated from the first guide channel section by an opening.

48. The brake pad assembly of claim 47, wherein the spring arm extends over the first guide channel section but not the second guide channel section.

49. The brake pad assembly of claim 39 further comprising a contact surface adjacent the guide channel, wherein a section of the contact surface is partially cut to form a flexible fixing clamp.

50. A brake pad assembly comprising a brake pad and a guide spring for engagement with the brake pad, the brake pad including a main portion and a lateral guiding portion extending from the main portion, the lateral guiding portion including a radial extension having three sides, the guide spring comprising an end portion having an axial spring force component with a sloped edge that is sloped in the axial direction, and the guide spring comprising a guiding channel having a depth for

receiving the radial extension and surrounding the three sides of the radial extension.

51. The brake pad assembly of claim 50, wherein the guide spring comprises a cantilevered spring arm that terminates tangentially inwardly over the guiding channel.

52. The brake pad assembly of claim 51, wherein the spring arm comprises a pair of V-shaped hinge portions separated by an opening and a ramp portion extending between the V-shaped hinge portions.

53. The brake pad assembly of claim 50, wherein the lateral guiding portion comprises a stop surface, and the guide spring comprises a contoured edge for engagement with the stop surface.

IX. EVIDENCE APPENDIX

None.

X. RELATED PROCEEDINGS APPENDIX

None.